

## EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	743	(microlens or micro\$lens or micro lens) near3 (offset or shift\$4)	US-PGPUB; USPAT	AND	ON	2011/11/08 12:45
L2	213	1 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2011/11/08 12:45
L3	588	(microlens or micro\$lens or micro lens) near3 (offset or shift\$4)	US-PGPUB; USPAT	ADJ	ON	2011/11/08 12:46
L4	93	3 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2011/11/08 12:46
L5	660	(color filter) near3 (offset or shift\$4)	US-PGPUB; USPAT	ADJ	ON	2011/11/08 12:47
L6	239	5 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2011/11/08 12:47
L7	96	(color filter) near3 (displac\$4)	US-PGPUB; USPAT	ADJ	ON	2011/11/08 12:47
L8	51	7 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2011/11/08 12:47
L9	98	(microlens or micro\$lens or micro lens) near3 (displac\$4)	US-PGPUB; USPAT	ADJ	ON	2011/11/08 12:48
L10	35	9 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2011/11/08 12:48
L11	142	(microlens or micro\$lens or micro lens) near3 (moved)	US-PGPUB; USPAT	ADJ	ON	2011/11/08 12:48
L12	46	11 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2011/11/08 12:48
L13	295	(color filter) near3 (moved)	US-PGPUB; USPAT	ADJ	ON	2011/11/08 12:48
L14	159	13 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2011/11/08 12:49
L15	1	("5620390").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2011/11/08 13:01
L16	1	("5610390").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2011/11/08 13:01
L17	11	(color filter layer with micro lens layer).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2011/11/08 13:15
L25	220	(348/315).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2011/11/08 13:30

## EAST Search History (Prior Art)

L26	130	25 and @ad< "20020919"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2011/11/08 13:30
L27	1	26 and @pd> "20080424"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2011/11/08 13:31
L28	3067	(348/218.1,267,262,264,263,266,268,272, 275,273,255,264,282,320,322).OCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2011/11/08 13:31
L29	1408	28 and @ad< "20020919"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2011/11/08 13:32
L30	0	26 and @pd> "20090421"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2011/11/08 13:32
L31	5	29 and @pd> "20090421"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2011/11/08 13:32
L32	360	(438/80).OCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2011/11/08 13:34
L33	205	32 and @ad< "20020919"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2011/11/08 13:34
L34	0	33 and @pd> "20090421"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2011/11/08 13:34

## EAST Search History (Prior Art)

L35	0	33 and @pd> "20080421"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2011/11/08 13:35
L36	0	33 and @pd> "20070421"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2011/11/08 13:35
L37	12	33 and @pd> "20040421"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2011/11/08 13:35
L38	66	micro lens with color filter with (shift\$4 or offset\$4 or displac\$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2011/11/08 13:36
L39	5	38 and @ad< "20020919"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2011/11/08 13:37
L40	61	38 not 39	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2011/11/08 13:38
L41	2	"same" channel with pixel signal	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2011/11/08 13:41
L42	168851	("348").CLAS.	US-PGPUB; USPAT; USOCR	OR	OFF	2011/11/08 13:41
L43	37452	"same" channel	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2011/11/08 13:41

## EAST Search History (Prior Art)

L44	2846	42 and 43	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2011/11/08 13:41
L45	0	"same" channel with (first or second) light receiving area	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2011/11/08 13:42
L46	135	(terutake same kadohara).in.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2011/11/08 13:42
L47	1	46 and (microlens or micro\$lens or microlens)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2011/11/08 13:46
L48	2	46 and (color filter layer)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2011/11/08 13:47
S1	1	("20040090538").PN.	US-PGPUB; USPAT	OR	OFF	2008/04/24 13:06
S2	6	("20020039489" "6002145" "6075905" "677 1814" "6791615" "7072509").PN.	US-PGPUB; USPAT	AND	ON	2008/04/24 13:10
S3	160	(348/315).CCLS.	US-PGPUB; USPAT	OR	OFF	2008/04/24 15:54
S4	129	S3 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2008/04/24 15:54
S5	3	S4 and (single adj channel)	US-PGPUB; USPAT	AND	ON	2008/04/24 15:55
S6	4	S4 and (("same" or single) adj channel)	US-PGPUB; USPAT	AND	ON	2008/04/24 15:55
S7	0	"7262799".pn. and gain	US-PGPUB; USPAT	AND	ON	2008/04/24 16:08
S8	8	("1037458").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2008/04/24 16:14

## EAST Search History (Prior Art)

S9	1382	(348/262,263,264,267,266,267,268,272, 273,275).CCLS.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2008/04/24 16:51
S10	67	S9 and (("same" or single or one) adj channel)	US-PGPUB; USPAT	AND	ON	2008/04/24 16:51
S11	50	S10 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2008/04/24 16:52
S12	28	("20030133019"   "4484349"   "4598321"   "4665440"   "4692812"   "4797942"   "4821103"   "5047858"   "5153421"   "5159455"   "5210614"   "5220626"   "5297222"   "5379067"   "5432551"   "5523788"   "5572037"   "5598261"   "5634067"   "5764288"   "5805216"   "5834782"   "5896172"   "5953462"   "6002492"   "6212303"   "6396960"   "6744931").PN.	US-PGPUB; USPAT; USOCR	AND	ON	2008/04/24 17:07
S13	0	("7015966").URPN.	USPAT	AND	ON	2008/04/24 17:16
S14	8	(masaki same higurashi).in.	USPAT	AND	ON	2008/04/24 17:20
S15	45	(yasuhiro same komiya).in.	USPAT	AND	ON	2008/04/24 17:26
S16	39	S15 not S14	USPAT	AND	ON	2008/04/24 17:26
S17	32	S16 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2008/04/24 17:26
S18	40	(348/267).CCLS.	US-PGPUB; USPAT	OR	OFF	2008/04/25 10:21
S19	114	(348/266).CCLS.	US-PGPUB; USPAT	OR	OFF	2008/04/25 10:25
S20	90	S19 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2008/04/25 10:26
S21	4	segmented adj image adj sensor	US-PGPUB; USPAT	AND	ON	2008/04/25 10:41
S22	141	segmented adj sensor	US-PGPUB; USPAT	AND	ON	2008/04/25 10:51
S23	114868	("348").CLAS.	US-PGPUB; USPAT	OR	OFF	2008/04/25 10:51
S24	41487	("396").CLAS.	US-PGPUB; USPAT	OR	OFF	2008/04/25 10:52
S25	101936	("250").CLAS.	US-PGPUB; USPAT	OR	OFF	2008/04/25 10:52
S26	267708	("257").CLAS.	US-PGPUB; USPAT	OR	OFF	2008/04/25 10:52
S27	19	S22 and (S23 or S24 or S25 or S26)	US-PGPUB; USPAT	AND	ON	2008/04/25 10:52

## EAST Search History (Prior Art)

S28	1	( "5302997" ).PN.	US-PGPUB; USPAT	OR	OFF	2008/04/25 10:53
S29	21	( "4598321"   "4665440"   "4692812"   "4797942"   "4821103"   "5047858"   "5159455"   "5210614"   "5379067"   "5432551"   "5477264"   "5572037"   "5598261"   "5606707"   "5634067"   "5764288"   "5805216"   "5834782"   "5896172"   "6337713"   "6571022" ).PN.	US-PGPUB; USPAT; USOCR	AND	ON	2008/04/25 11:25
S30	8	( "1037458" ).PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2008/04/25 16:47
S31	1	( "20020071046" ).PN.	US-PGPUB; USPAT	OR	OFF	2009/04/20 09:52
S32	1	( "2002/0071046" ).URPN.	USPAT	AND	ON	2009/04/20 09:53
S33	5	( "5291294"   "5742659"   "5969759"   "6822213"   "6831688" ).PN.	USPAT	AND	ON	2009/04/20 09:54
S34	2	( "20020118291"   "4559550"   "4837630" ).PN.	USPAT	AND	ON	2009/04/20 09:58
S35	1	( "5291294" ).PN.	USPAT	AND	ON	2009/04/20 09:58
S36	42	( 348/267 ) .CCLS.	US-PGPUB; USPAT	OR	OFF	2009/04/20 10:02
S37	33	( US-20020039489-\$ or US-20020180877-\$ or US-20020113889-\$ or US-20020085103-\$ or US-20030133019-\$ or US-20050008356-\$ or US-20020071046-\$ ).did. or ( US-7072509-\$ or US-6687026-\$ or US-7015966-\$ or US-7009646-\$ or US-6333760-\$ or US-7161627-\$ or US-6809765-\$ or US-6507011-\$ or US-6744931-\$ or US-6212303-\$ or US-5572037-\$ or US-5047858-\$ or US-6211911-\$ or US-6205259-\$ or US-7071978-\$ or US-6731338-\$ or US-5789737-\$ or US-5204620-\$ or US-6571022-\$ or US-6337713-\$ or US-5896172-\$ or US-5834782-\$ or US-5805216-\$ or US-5742659-\$ or US-6940556-\$ ).did. or ( EP-1037458-\$ ).did.	US-PGPUB; USPAT; EPO	AND	ON	2009/04/20 10:07
S38	28	( "20030133019"   "4484349"   "4598321"   "4665440"   "4692812"   "4797942"   "4821103"   "5047858"   "5153421"   "5159455"   "5210614"   "5220626"   "5297222"   "5379067"   "5432551"   "5523788"   "5572037"   "5598261"   "5634067"   "5764288"   "5805216"   "5834782"   "5896172"   "5953462"   "6002492"   "6212303"   "6396960"   "6744931" ).PN.	US-PGPUB; USPAT; USOCR	AND	ON	2009/04/20 10:10

## EAST Search History (Prior Art)

S39	0	("7015966").URPN.	USPAT	AND	ON	2009/04/20 10:17
S40	14	("20020000549"   "5321303"   "5398275"   "5510623"   "5629524"   "5834782"   "5883830"   "5886353"   "5937027"   "5990503"   "6115066"   "6276605"   "6307393"   "6456324").PN.	US-PGPUB; USPAT; USOCR	AND	ON	2009/04/20 10:19
S41	0	("7009646").URPN.	USPAT	AND	ON	2009/04/20 10:20
S42	25	("6205259").URPN.	USPAT	AND	ON	2009/04/20 10:29
S43	357	(348/218.1).CCLS.	US-PGPUB; USPAT	OR	OFF	2009/04/20 10:34
S44	189	S43 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2009/04/20 10:34
S45	1	("7123298").PN.	US-PGPUB; USPAT	OR	OFF	2009/04/20 11:48
S46	13	("20020163095"   "3971065"   "4323925"   "4506294"   "4870483"   "5353056"   "5453840"   "5475508"   "6069743"   "6226084"   "6611289"   "6766954"   "6833873").PN.	US-PGPUB; USPAT; USOCR	AND	ON	2009/04/20 11:48
S47	181	(348/262).CCLS.	US-PGPUB; USPAT	OR	OFF	2009/04/20 11:55
S48	103	S47 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2009/04/20 11:55
S49	97	S48 not (S36 or S43)	US-PGPUB; USPAT	AND	ON	2009/04/20 11:55
S50	110	(348/263).CCLS.	US-PGPUB; USPAT	OR	OFF	2009/04/20 12:11
S51	95	S50 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2009/04/20 12:11
S52	92	S51 not (S48 or S36 or S43)	US-PGPUB; USPAT	AND	ON	2009/04/20 12:12
S53	86	(348/264).CCLS.	US-PGPUB; USPAT	OR	OFF	2009/04/20 12:31
S54	73	S53 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2009/04/20 12:31
S55	61	S54 not (S51 or S48 or S36 or S43)	US-PGPUB; USPAT	AND	ON	2009/04/20 12:31
S56	118	(348/266).CCLS.	US-PGPUB; USPAT	OR	OFF	2009/04/20 12:41
S57	90	S56 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2009/04/20 12:41
S58	85	S57 not (S54 or S51 or S48 or S36 or S43)	US-PGPUB; USPAT	AND	ON	2009/04/20 12:41
S59	32	(348/268).CCLS.	US-PGPUB; USPAT	OR	OFF	2009/04/20 12:49

## EAST Search History (Prior Art)

S60	19	S59 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2009/04/20 12:49
S61	15	S60 not (S57 or S54 or S51 or S48 or S36 or S43)	US-PGPUB; USPAT	AND	ON	2009/04/20 12:49
S62	110	(348/275).CCLS.	US-PGPUB; USPAT	OR	OFF	2009/04/20 12:55
S63	79	S62 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2009/04/20 12:55
S64	75	S63 not (S60 or S57 or S54 or S51 or S48 or S36 or S43)	US-PGPUB; USPAT	AND	ON	2009/04/20 12:55
S65	428	(348/272).CCLS.	US-PGPUB; USPAT	OR	OFF	2009/04/20 13:22
S66	189	S65 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2009/04/20 13:22
S67	157	S66 not (S63 or S60 or S57 or S54 or S51 or S48 or S36 or S43)	US-PGPUB; USPAT	AND	ON	2009/04/20 13:22
S68	473	(348/273).CCLS.	US-PGPUB; USPAT	OR	OFF	2009/04/20 13:43
S69	329	S68 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2009/04/20 13:43
S70	259	S69 not (S66 or S63 or S60 or S57 or S54 or S51 or S48 or S36 or S43)	US-PGPUB; USPAT	AND	ON	2009/04/20 13:44
S71	475	((single or one) near2 (substrate or surface)) with ((plurality or multiple or (more adj than adj one)) with ((image adj sensor) or (image adj pickup) or ccd or imager))	US-PGPUB; USPAT	AND	ON	2009/04/20 14:25
S72	215	S71 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2009/04/20 14:26
S73	208	S72 not (S69 or S66 or S63 or S60 or S57 or S54 or S51 or S48 or S36 or S43)	US-PGPUB; USPAT	AND	ON	2009/04/20 14:26
S74	152	(348/255).CCLS.	US-PGPUB; USPAT	OR	OFF	2009/04/20 16:27
S75	294	(348/255,265).CCLS.	US-PGPUB; USPAT	OR	OFF	2009/04/20 16:27
S76	211	S75 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2009/04/20 16:27
S77	170	S76 not (S72 or S69 or S66 or S63 or S60 or S57 or S54 or S51 or S48 or S36 or S43)	US-PGPUB; USPAT	AND	ON	2009/04/20 16:27
S78	60	(348/282).CCLS.	US-PGPUB; USPAT	OR	OFF	2009/04/20 16:42
S79	46	S78 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2009/04/20 16:42
S80	36	S79 not (S76 or S72 or S69 or S66 or S63 or S60 or S57 or S54 or S51 or S48 or S36 or S43)	US-PGPUB; USPAT	AND	ON	2009/04/20 16:42

## EAST Search History (Prior Art)

S81	617	(348/311).CCLS.	US-PGPUB; USPAT	OR	OFF	2009/04/20 16:50
S82	176	(348/315).CCLS.	US-PGPUB; USPAT	OR	OFF	2009/04/20 16:50
S83	130	S82 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2009/04/20 16:51
S84	102	S83 not (S79 or S76 or S72 or S69 or S66 or S63 or S60 or S57 or S54 or S51 or S48 or S36 or S43)	US-PGPUB; USPAT	AND	ON	2009/04/20 16:51
S85	28	("20030133019"   "4484349"   "4598321"   "4665440"   "4692812"   "4797942"   "4821103"   "5047858"   "5153421"   "5159455"   "5210614"   "5220626"   "5297222"   "5379067"   "5432551"   "5523788"   "5572037"   "5598261"   "5634067"   "5764288"   "5805216"   "5834782"   "5896172"   "5953462"   "6002492"   "6212303"   "6396960"   "6744931").PN.	US-PGPUB; USPAT; USOCR	AND	ON	2009/04/20 16:55
S86	0	("7015966").URPN.	USPAT	AND	ON	2009/04/20 16:57
S87	1	("7295238").PN.	US-PGPUB; USPAT	OR	OFF	2009/04/21 10:16
S88	1	("20020025164").PN.	US-PGPUB; USPAT	OR	OFF	2009/04/21 10:17
S89	3	("2002253305").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2009/04/21 10:30
S90	2	("2000253305").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2009/04/21 10:30
S91	1	(divisional adj exposure adj operations)	US-PGPUB; USPAT	AND	ON	2009/04/21 10:30
S92	31	(terutake same kadohara).in.	US-PGPUB; USPAT	AND	ON	2009/04/21 10:31
S93	53830	canon.as.	US-PGPUB; USPAT	AND	ON	2009/04/21 10:32
S94	902	(three near5 regions) same2 ccd	US-PGPUB; USPAT	AND	ON	2009/04/21 10:34
S95	35	S93 and S94	US-PGPUB; USPAT	AND	ON	2009/04/21 10:34

## EAST Search History (Prior Art)

S96	73	ccd with (three near3 regions)	US-PGPUB; USPAT	AND	ON	2009/04/21 10:39
S97	41	S96 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2009/04/21 10:39
S98	52	(image adj sensor) with (three near3 regions)	US-PGPUB; USPAT	AND	ON	2009/04/21 10:47
S99	23	S98 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2009/04/21 10:47
S100	348	(three near3 ((image adj sensor) or ccd)) with ((same" or single or one) near3 substrate or chip)	US-PGPUB; USPAT	AND	ON	2009/04/21 10:54
S101	201	S100 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2009/04/21 10:55
S102	10	pulnix.as.	US-PGPUB; USPAT	AND	ON	2009/04/21 11:05
S103	3	("7213126").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2009/04/21 11:25
S104	0	"4873569".pn. and shift	US-PGPUB; USPAT	AND	ON	2009/04/21 11:46
S105	8	("4873569").URPN.	USPAT	AND	ON	2009/04/21 11:46
S106	8	("3922069"   "4005285"   "4262305"   "4425577"   "4507679"   "4641920"   "4642679"   "4644390").PN.	US-PGPUB; USPAT; USOCR	AND	ON	2009/04/21 11:47
S107	1	("20020071046").PN.	US-PGPUB; USPAT	OR	OFF	2009/04/21 12:19
S108	1	("2002/0071046").URPN.	USPAT	AND	ON	2009/04/21 12:20
S109	1	("7289150").PN.	US-PGPUB; USPAT	OR	OFF	2009/04/21 12:21
S110	8	("20020118291"   "4559550"   "4837630"   "5291294"   "5742659"   "5969759"   "6822213"   "6831688").PN.	US-PGPUB; USPAT; USOCR	AND	ON	2009/04/21 12:21
S111	16	("5969759").URPN.	USPAT	AND	ON	2009/04/21 12:23
S112	13	("4216503"   "4525741"   "5070414"   "5153929"   "5260794"   "5737015"   "5940125"   "5969759"   "6084634"   "6337713"   "6700609"   "6721009"   "6791615").PN.	US-PGPUB; USPAT; USOCR	AND	ON	2009/04/21 12:25
S113	4	("7050098").URPN.	USPAT	AND	ON	2009/04/21 12:27

## EAST Search History (Prior Art)

S11 4	14	("20010021008"   "20020003973"   "20030020819"   "5396286"   "5497192"   "5764871"   "5838837"   "5883663"   "6288756"   "6337951"   "6397334"   "6407747"   "7050098"   "7106370").PN.	US-PGPUB; USPAT; USOCR	AND	ON	2009/04/21 12:28
S11 5	8	("20010022858"   "5515102"   "5737015"   "6072603"   "6101287"   "6337713"   "6608648"   "6791608").PN.	US-PGPUB; USPAT; USOCR	AND	ON	2009/04/21 12:28
S11 6	16	("20020140830"   "20050007475"   "20060197853"   "20070098300"   "5386228"   "5737015"   "6211911"   "6337713"   "6433822"   "6731338"   "6768102"   "6791615"   "6804406"   "7019775"   "7050098"   "7215364").PN.	US-PGPUB; USPAT; USOCR	AND	ON	2009/04/21 12:31
S11 7	4	("5737015"   "6552744"   "6791615"   "7050098").PN.	US-PGPUB; USPAT; USOCR	AND	ON	2009/04/21 12:34
S11 8	7	("4575763"   "4647977"   "4835616"   "5491512"   "5742081"   "5748232"   "5969759").PN.	US-PGPUB; USPAT; USOCR	AND	ON	2009/04/21 12:35
S11 9	1	("20020067416").PN.	US-PGPUB; USPAT	OR	OFF	2009/04/21 12:47
S12 0	7	("4323925"   "5436662"   "5694165"   "5742659"   "5896172"   "5969759"   "6337713").PN.	US-PGPUB; USPAT; USOCR	AND	ON	2009/04/21 12:51
S12 1	220	((yusuke same shirakawa) or (shinichi same hagiwara)).in.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2009/04/21 12:56
S12 2	161	S121 and (@ad<"20020913" or @pd<"20020913")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2009/04/21 12:57
S12 3	6417	(one or single) near2 ((horizontal adj shift adj register) or channel) with image	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2009/04/21 13:16

## EAST Search History (Prior Art)

S12 4	7404	(one or single or "same") near2 ((horizontal adj shift adj register) or channel) with image	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2009/04/21 13:16
S12 5	112	(one or single or "same") near2 ((horizontal adj shift adj register) or channel) with image with (readout or (read adj out))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2009/04/21 13:17
S12 6	79	S125 and (@ad<"20020913" or @pd<"20020913")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2009/04/21 13:17
S12 7	21	("4598321"   "4665440"   "4692812"   "4797942"   "4821103"   "5047858"   "5159455"   "5210614"   "5379067"   "5432551"   "5477264"   "5572037"   "5598261"   "5606707"   "5634067"   "5764288"   "5805216"   "5834782"   "5896172"   "6337713"   "6571022").PN.	US-PGPUB; USPAT; USOCR	AND	ON	2009/04/21 13:32
S12 8	9	("4692812"   "4797942"   "4980771"   "5285286"   "5396091"   "5606427"   "5727116"   "5896172"   "5969759").PN.	US-PGPUB; USPAT; USOCR	AND	ON	2009/04/21 13:36
S12 9	267	(348/322,320).CCLS.	US-PGPUB; USPAT	OR	OFF	2009/04/21 13:49
S13 0	42	(348/267).CCLS.	US-PGPUB; USPAT	OR	OFF	2009/04/21 13:50
S13 1	357	(348/218.1).CCLS.	US-PGPUB; USPAT	OR	OFF	2009/04/21 13:50
S13 2	181	(348/262).CCLS.	US-PGPUB; USPAT	OR	OFF	2009/04/21 13:50
S13 3	103	S132 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2009/04/21 13:50
S13 4	110	(348/263).CCLS.	US-PGPUB; USPAT	OR	OFF	2009/04/21 13:50
S13 5	95	S134 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2009/04/21 13:50
S13 6	86	(348/264).CCLS.	US-PGPUB; USPAT	OR	OFF	2009/04/21 13:50
S13 7	73	S136 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2009/04/21 13:50

## EAST Search History (Prior Art)

S13 8	118	(348/266).CCLS.	US-PGPUB; USPAT	OR	OFF	2009/04/21 13:50
S13 9	90	S138 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2009/04/21 13:50
S14 0	32	(348/268).CCLS.	US-PGPUB; USPAT	OR	OFF	2009/04/21 13:50
S14 1	19	S140 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2009/04/21 13:50
S14 2	110	(348/275).CCLS.	US-PGPUB; USPAT	OR	OFF	2009/04/21 13:50
S14 3	79	S142 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2009/04/21 13:50
S14 4	428	(348/272).CCLS.	US-PGPUB; USPAT	OR	OFF	2009/04/21 13:50
S14 5	189	S144 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2009/04/21 13:50
S14 6	473	(348/273).CCLS.	US-PGPUB; USPAT	OR	OFF	2009/04/21 13:50
S14 7	329	S146 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2009/04/21 13:50
S14 8	476	((single or one) near2 (substrate or surface)) with ((plurality or multiple or (more adj than adj one)) with ((image adj sensor) or (image adj pickup) or ccd or imager))	US-PGPUB; USPAT	AND	ON	2009/04/21 13:50
S14 9	215	S148 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2009/04/21 13:50
S15 0	295	(348/255,265).CCLS.	US-PGPUB; USPAT	OR	OFF	2009/04/21 13:50
S15 1	211	S150 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2009/04/21 13:50
S15 2	60	(348/282).CCLS.	US-PGPUB; USPAT	OR	OFF	2009/04/21 13:50
S15 3	46	S152 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2009/04/21 13:50
S15 4	247	S129 not (S153 or S151 or S149 or S147 or S145 or S143 or S141 or S139 or S137 or S135 or S133 or S130 or S131)	US-PGPUB; USPAT	AND	ON	2009/04/21 13:50
S15 5	214	S154 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2009/04/21 13:50
S15 6	8	combiner adj card	US-PGPUB; USPAT	AND	ON	2009/04/21 15:24
S15 7	24	(combiner or repetition) adj card	US-PGPUB; USPAT	AND	ON	2009/04/21 15:24
S15 8	5	((combiner or repetition) adj card).clm.	US-PGPUB; USPAT	AND	ON	2009/04/21 15:24

## EAST Search History (Prior Art)

S15 9	1	("7324142").PN.	US-PGPUB; USPAT	OR	OFF	2009/04/21 15:26
S16 0	4471	(250/208.1).CCLS.	US-PGPUB; USPAT	OR	OFF	2009/08/03 16:03
S16 1	1250	S160 and exposure	US-PGPUB; USPAT	AND	ON	2009/08/03 16:03
S16 2	46	S160 and (manufactur\$4 with exposure)	US-PGPUB; USPAT	AND	ON	2009/08/03 16:03
S16 3	18	S162 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2009/08/03 16:05
S16 4	44	S160 and (plurality near4 exposure)	US-PGPUB; USPAT	AND	ON	2009/08/03 16:09
S16 5	28	S164 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2009/08/03 16:10
S16 6	473	(359/238).CCLS.	US-PGPUB; USPAT	OR	OFF	2009/08/04 12:44
S16 7	28	S166 and waveform	US-PGPUB; USPAT	AND	ON	2009/08/04 12:44
S16 8	49	giglio.xa.	US-PGPUB; USPAT	AND	ON	2009/08/04 12:48
S16 9	27	segmented near ccd	US-PGPUB; USPAT	AND	ON	2009/08/04 15:10
S17 0	28	("20030133019"   "4484349"   "4598321"   "4665440"   "4692812"   "4797942"   "4821103"   "5047858"   "5153421"   "5159455"   "5210614"   "5220626"   "5297222"   "5379067"   "5432551"   "5523788"   "5572037"   "5598261"   "5634067"   "5764288"   "5805216"   "5834782"   "5896172"   "5953462"   "6002492"   "6212303"   "6396960"   "6744931").PN.	US-PGPUB; USPAT; USOCR	AND	ON	2009/08/04 15:11
S17 1	0	("7015966").URPN.	USPAT	AND	ON	2009/08/04 15:19
S17 2	261	(438/80).CCLS.	US-PGPUB; USPAT	OR	OFF	2009/08/04 16:29
S17 3	205	S172 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2009/08/04 16:29
S17 4	1	"6352875".pn. and output	US-PGPUB; USPAT	AND	ON	2009/08/04 16:42
S17 5	7	("4537827"   "4957882"   "4999077"   "4999484"   "5068713"   "5121225"   "5856699").PN.	US-PGPUB; USPAT; USOCR	AND	ON	2009/08/04 16:44
S17 6	0	"4999484".pn. and output	US-PGPUB; USPAT; USOCR	AND	ON	2009/08/04 16:46
S17 7	22	("4999484").URPN.	USPAT	AND	ON	2009/08/04 16:46

## EAST Search History (Prior Art)

S17 8	3	("4418284"   "4467342"   "4523102").PN.	US-PGPUB; USPAT; USOCR	AND	ON	2009/08/04 16:50
S17 9	74	( "4467342").URPN.	USPAT	AND	ON	2009/08/04 16:51
S18 0	1	"5834782".pn. and output	USPAT	AND	ON	2009/08/04 16:56
S18 1	1	"5105087".pn. and output	USPAT	AND	ON	2009/08/04 16:59
S18 2	29	( "4999077").URPN.	USPAT	AND	ON	2009/08/04 17:04
S18 3	0	"7164506".pn. and correct\$4	USPAT	AND	ON	2009/08/04 17:16
S18 4	0	"7164506".pn. and correct\$6	USPAT	AND	ON	2009/08/04 17:17
S18 5	0	"7164506".pn. and dimension\$4	USPAT	AND	ON	2009/08/04 17:18
S18 6	10	( "4567529"   "4691114"   "4737854"   "4940325"   "4999077"   "5160945"   "5528272"   "6014160"   "6133952"   "7042491").PN.	US-PGPUB; USPAT; USOCR	AND	ON	2009/08/04 17:20
S18 7	1	( "7042491" or "7164506").pn. and color	US-PGPUB; USPAT; USOCR	AND	ON	2009/08/04 17:33
S18 8	473	(sensitivity near3 correct\$4) with color	US-PGPUB; USPAT; USOCR	AND	ON	2009/08/04 17:51
S18 9	48	(sensitivity near3 correct\$4) with color with different	US-PGPUB; USPAT; USOCR	AND	ON	2009/08/04 17:52
S19 0	26	S189 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2009/08/04 17:52
S19 1	0	"7042491".pn. and multipl\$5	US-PGPUB; USPAT	AND	ON	2009/08/05 09:54
S19 2	1	"7042491".pn. and add\$4	US-PGPUB; USPAT	AND	ON	2009/08/05 09:55
S19 3	1	"7164506".pn. and color	US-PGPUB; USPAT	AND	ON	2009/08/05 10:15
S19 4	1	"7042491".pn. and lens	US-PGPUB; USPAT	AND	ON	2009/08/05 11:09
S19 5	0	"7164506".pn. and lens	US-PGPUB; USPAT	AND	ON	2009/08/05 11:10
S19 6	133386	( "348").CLAS.	US-PGPUB; USPAT	OR	OFF	2009/08/05 14:33
S19 7	103	S196 and (negative adj gain)	US-PGPUB; USPAT	AND	ON	2009/08/05 14:33

## EAST Search History (Prior Art)

S19 8	2	S196 and (chang\$4 with (negative adj gain))	US-PGPUB; USPAT	AND	ON	2009/08/05 14:33
S19 9	3	("20020154225" "20030001958" "5920342") .PN.	US-PGPUB; USPAT	AND	ON	2009/08/05 14:34
S20 0	4	( "2002/0154225").URPN.	USPAT	AND	ON	2009/08/05 14:42
S20 1	0	"6882363".pn. and (digital near3 gain)	USPAT	AND	ON	2009/08/05 14:43
S20 2	1	( "5831676").PN.	US-PGPUB; USPAT	OR	OFF	2009/08/05 14:45
S20 3	0	S202 and (digital near3 gain)	US-PGPUB; USPAT	AND	ON	2009/08/05 14:45
S20 4	0	S202 and (digital near6 gain)	US-PGPUB; USPAT	AND	ON	2009/08/05 14:46
S20 5	1	S202 and (digital near6 gain)	US-PGPUB; USPAT	AND	ON	2009/08/05 14:46
S20 6	24	( "5831676").URPN.	USPAT	AND	ON	2009/08/05 14:48
S20 7	5	S206 and (digital near5 gain)	USPAT	AND	ON	2009/08/05 14:48
S20 8	9	("4534639"   "4606065"   "4769668"   "4910600"   "5053871"   "5128769"   "5184169"   "5194960"   "5212557").PN.	US-PGPUB; USPAT; USOCR	AND	ON	2009/08/05 14:53
S20 9	3998	(358/474).CCLS.	US-PGPUB; USPAT	OR	OFF	2010/05/07 09:55
S21 0	53	S209 and frame adj memory	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2010/05/07 09:57
S21 1	24	S209 and frame adj memory same correct\$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2010/05/07 09:57
S21 2	21	S211 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2010/05/07 09:57
S21 3	60	(image adj sensor adj bar)	US-PGPUB; USPAT	AND	ON	2010/05/07 10:18
S21 4	23	(image adj sensor adj bar) and correct\$4	US-PGPUB; USPAT	AND	ON	2010/05/07 10:18
S21 5	14	S214 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2010/05/07 10:18
S21 6	9	(line adj sensor adj bar) and correct\$4	US-PGPUB; USPAT	AND	ON	2010/05/07 10:45

## EAST Search History (Prior Art)

S21 7	1	("7164506").PN.	US-PGPUB; USPAT	OR	OFF	2010/05/07 10:47
S21 8	10	("4567529"   "4691114"   "4737854"   "4940325"   "4999077"   "5160945"   "5528272"   "6014160"   "6133952"   "7042491").PN.	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/05/07 10:47
S21 9	3	S218 and correct\$4	US-PGPUB; USPAT	AND	ON	2010/05/07 10:49
S22 0	38120	linear adj array	US-PGPUB; USPAT	AND	ON	2010/05/07 10:52
S22 1	4016	(linear adj array) with sensor	US-PGPUB; USPAT	AND	ON	2010/05/07 10:52
S22 2	0	(linear adj array) with sensor same sensitivity	US-PGPUB; USPAT	AND	ON	2010/05/07 10:52
S22 3	147	(linear adj array) with sensor same sensitivity	US-PGPUB; USPAT	AND	ON	2010/05/07 10:52
S22 4	6	(linear adj array) with sensor same sensitivity\$4 near4 difference	US-PGPUB; USPAT	AND	ON	2010/05/07 10:53
S22 5	10	(linear adj array) same sensitivit\$4 near4 difference	US-PGPUB; USPAT	AND	ON	2010/05/07 10:54
S22 6	7	S225 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2010/05/07 10:55
S22 7	10	(adjacent near3 sensors) same sensitivit\$4 near4 difference	US-PGPUB; USPAT	AND	ON	2010/05/07 10:56
S22 8	3	S227 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2010/05/07 10:56
S22 9	4	("4652119"   "5483336"   "5721977"   "6263164").PN.	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/05/07 10:59
S23 0	3036	linear ccd	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/05/07 11:00
S23 1	4	linear ccd same (sensitivit\$4 near3 difference)	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/05/07 11:00
S23 2	1	"4926251".pn. and frame	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/05/07 11:09
S23 3	1	"4926251".pn. and memory	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/05/07 11:10
S23 4	2	linear ccd same (correct\$4 near3 difference)	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/05/07 11:16
S23 5	44	linear near3 (ccd or (image adj sensor) or photosensor) same ((correct\$4 or eliminat\$4) near4 difference)	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/05/07 11:20

## EAST Search History (Prior Art)

S23 6	33	S235 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2010/05/07 11:21
S23 7	16294	adjacent linear near3 (ccd or sensor)	US-PGPUB; USPAT	AND	ON	2010/05/07 11:25
S23 8	750	adjacent linear near3 (ccd or sensor) with correct\$4	US-PGPUB; USPAT	AND	ON	2010/05/07 11:25
S23 9	5	adjacent linear near3 (ccd or sensor) with ((correct\$4 or eliminat\$4) near3 difference)	US-PGPUB; USPAT	AND	ON	2010/05/07 11:26
S24 0	0	adjacent adj linear near3 (ccd or sensor) with ((correct\$4 or eliminat\$4) near3 difference)	US-PGPUB; USPAT	AND	ON	2010/05/07 11:30
S24 1	114	adjacent adj linear near3 (ccd or sensor)	US-PGPUB; USPAT	AND	ON	2010/05/07 11:31
S24 2	1	adjacent adj linear near3 (ccd or sensor) with (correct\$4 or eliminat\$4)	US-PGPUB; USPAT	AND	ON	2010/05/07 11:31
S24 3	1	"4891690".pn. and correct\$4	US-PGPUB; USPAT	AND	ON	2010/05/07 11:36
S24 4	758	358/514	US-PGPUB; USPAT	AND	ON	2010/05/07 11:38
S24 5	61	S244 and ((correct\$4 or eliminat\$4) near3 differences)	US-PGPUB; USPAT	AND	ON	2010/05/07 11:38
S24 6	43	S245 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2010/05/07 11:38
S24 7	49	cutler.xa.	US-PGPUB; USPAT	AND	ON	2010/05/07 11:48
S24 8	67	pasiewicz.xa.	US-PGPUB; USPAT	AND	ON	2010/05/07 11:48
S24 9	14	schnurr.xa.	US-PGPUB; USPAT	AND	ON	2010/05/07 11:48
S25 0	24	short line sensors	US-PGPUB; USPAT	ADJ	ON	2010/05/07 11:53
S25 1	21	S250 and difference	US-PGPUB; USPAT	ADJ	ON	2010/05/07 11:53
S25 2	9	S251 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2010/05/07 11:54
S25 3	69	(short adj line) near2 (ccd or sensor or imag\$4)	US-PGPUB; USPAT	AND	ON	2010/05/07 15:25
S25 4	59	S253 and (correct\$4 or difference)	US-PGPUB; USPAT	AND	ON	2010/05/07 15:25
S25 5	38	S254 not S251	US-PGPUB; USPAT	AND	ON	2010/05/07 15:26
S25 6	26	S255 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2010/05/07 15:26
S25 7	84	S209 and (sensitiv\$4 near3 differen\$3)	US-PGPUB; USPAT	AND	ON	2010/05/07 15:32

## EAST Search History (Prior Art)

S25 8	42	S257 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2010/05/07 15:33
S25 9	0	"6069973".pn. and lens	US-PGPUB; USPAT	AND	ON	2010/05/08 11:22
S26 0	0	"7164506".pn. and lens	US-PGPUB; USPAT	AND	ON	2010/05/08 11:23
S26 1	146325	("348").CLAS.	US-PGPUB; USPAT	OR	OFF	2010/10/18 12:10
S26 2	6	S261 and (single output register)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2010/10/18 12:10
S26 3	0	"4263620".pn. and (red or green or blue or color)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2010/10/18 12:12
S26 4	0	"4263620".pn. and (red or green or blue or color or bayer)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2010/10/18 12:13
S26 5	90	S261 and (single shift register)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2010/10/18 12:15
S26 6	75	S265 and @ad<"20020919"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2010/10/18 12:15
S26 7	0	"20030227656".pn. and bayer	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2010/10/18 12:16
S26 8	13	S266 and (bayer or red or green or blue)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2010/10/18 12:17

## EAST Search History (Prior Art)

S26 9	32	S266 and (bayer or red or green or blue or color)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2010/10/18 12:18
S27 0	361	S261 and (one (shift or readout) register)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2010/10/18 12:24
S27 1	134	S270 and (bayer or red or green or blue)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2010/10/18 12:25
S27 2	65	S271 and @ad<"20020919"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2010/10/18 12:25
S27 3	62	(348/291).CCLS.	US-PGPUB; USPAT	OR	OFF	2010/10/18 12:46
S27 4	2	S273 and bayer	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2010/10/18 12:46
S27 5	157	bayer and ((ccds or "ccd's") near3 connect\$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2010/10/18 12:48
S27 6	26	S275 and @ad<"20020919"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2010/10/18 12:48
S27 7	95	(multi\$chip or (multiple adj chip)) (ccd or (image sensor) or imager)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2010/10/18 12:57

## EAST Search History (Prior Art)

S27 8	58	S277 and @ad<"20020919"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2010/10/18 12:57
S27 9	16	("4567529" "4691114" "4737854" "4940325 " "4999077" "5160945" "5528272" "601416 0").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2010/10/18 12:59
S28 0	5	("4567529"   "4691114"   "4737854"   "5003380"   "5528272").PN.	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/10/18 13:00
S28 1	10	("4567529"   "4691114"   "4737854"   "4940325"   "4999077"   "5160945"   "5528272"   "6014160"   "6133952"   "7042491").PN.	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/10/18 13:02
S28 2	0	"6545776".pn. and (bayer or red or green or blue)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2010/10/18 13:05
S28 3	0	"5587814".pn. and bayer	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2010/10/18 13:25
S28 4	17	( "5587814" ).URPN.	USPAT	ADJ	ON	2010/10/18 13:26
S28 5	0	"4987295".pn. and shift	USPAT	ADJ	ON	2010/10/18 14:19
S28 6	4	( "4987295" ).URPN.	USPAT	ADJ	ON	2010/10/18 14:19
S28 7	221	(348/208.1).CCLS.	US-PGPUB; USPAT	OR	OFF	2010/10/18 14:22
S28 8	55	S287 and @ad<"20020919"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2010/10/18 14:22
S28 9	10656	250/208.1	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2010/10/18 14:48

## EAST Search History (Prior Art)

S29 0	5184	S289 and @ad< "20020919"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2010/10/18 14:50
S29 1	840	S290 and shift register	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2010/10/18 14:51
S29 2	21	S290 and shift register and bayer	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2010/10/18 14:51
S29 3	311	S261 and (common output line)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2010/10/18 15:28
S29 4	195	S293 and @ad< "20020919"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2010/10/18 15:28
S29 5	0	"20030043415".pn. and bayer	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2010/10/18 15:31
S29 6	1	"20020067416".pn. and bayer	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2010/10/18 15:36
S29 7	1	"20020067416".pn. and "110"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2010/10/18 15:50

## EAST Search History (Prior Art)

S29 8	1	"20020067416".pn. and correct\$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2010/10/18 16:03
S29 9	1	"20020067416".pn. and oxide	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2010/10/18 16:13
S30 0	70	(buttable or butted) near3 (image sensors or ccds or imaging devices or imagers)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2010/10/18 16:55
S30 1	48	S300 and @ad<"20020919"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2010/10/18 16:55
S30 2	0	"20030169847".pn. and bayer	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2010/10/18 17:00
S30 3	0	"20030169847".pn. and (red same green same blue)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2010/10/18 17:00
S30 4	0	"7333146".pn. and (bayer or red same green same blue)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2010/10/18 17:02
S30 5	0	"7009646".pn. and (bayer or red same green same blue)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2010/10/18 17:03
S30 6	19847	expos\$4 with imag\$4 with substrate	US-PGPUB; USPAT	AND	ON	2010/10/19 09:53
S30 7	526	expos\$4 near2 (operation) with imag\$4 with substrate	US-PGPUB; USPAT	AND	ON	2010/10/19 09:53

## EAST Search History (Prior Art)

S30 8	127	S307 and @ad<"20030916"	US-PGPUB; USPAT	AND	ON	2010/10/19 09:54
S30 9	113	S307 and @ad<"20020919"	US-PGPUB; USPAT	AND	ON	2010/10/19 09:54
S31 0	16161	segmented (imager or image sensor or ccd)	US-PGPUB; USPAT	AND	ON	2010/10/19 10:09
S31 1	37	segmented (imager or image sensor or ccd)	US-PGPUB; USPAT	ADJ	ON	2010/10/19 10:09
S31 2	5	("20040090538" "20040119854" "20050134 698" "6731338" "7015966").PN.	US-PGPUB; USPAT	ADJ	ON	2010/10/19 10:10
S31 3	3	("5896172" "6337713" "6571022").PN.	US-PGPUB; USPAT	ADJ	ON	2010/10/19 10:13
S31 4	19	( "5896172").URPN.	USPAT	ADJ	ON	2010/10/19 10:14
S31 5	1	"7295238".pn. and "5"	USPAT	ADJ	ON	2010/10/19 10:20
S31 6	6	("4525741"   "5047861"   "5379125"   "5896172"   "6337713"   "6791615").PN.	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/10/19 10:21
S31 7	28	("20030133019"   "4484349"   "4598321"   "4665440"   "4692812"   "4797942"   "4821103"   "5047858"   "5153421"   "5159455"   "5210614"   "5220626"   "5297222"   "5379067"   "5432551"   "5523788"   "5572037"   "5598261"   "5634067"   "5764288"   "5805216"   "5834782"   "5896172"   "5953462"   "6002492"   "6212303"   "6396960"   "6744931").PN.	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/10/19 10:23
S31 8	7	("4323925"   "5436662"   "5694165"   "5742659"   "5896172"   "5969759"   "6337713").PN.	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/10/19 11:04
S31 9	0	"5742659".pn. and filter	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/10/19 11:06
S32 0	0	"4323925".pn. and filter	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/10/19 11:07
S32 1	0	"20010015755".pn. and (color or red or green or blue or bayer)	US-PGPUB; USPAT; USOCR	ADJ	ON	2010/10/19 11:13

## EAST Search History (Prior Art)

S32 2	91	(US-20020039489-\$ or US-20020180877-\$ or US-20020113889-\$ or US-20020085103-\$ or US-20030133019-\$ or US-20050008356-\$ or US-20020071046-\$ or US-20020147383-\$ or US-20020125409-\$ or US-20030045916-\$ or US-20020067416-\$ or US-20020176605-\$ or US-20020154225-\$ or US-20020191229-\$ or US-20030227656-\$ or US-20030169847-\$ or US-20010015755-\$).did. or (US-7072509-\$ or US-6687026-\$ or US-7015966-\$ or US-7009646-\$ or US-6333760-\$ or US-7161627-\$ or US-6809765-\$ or US-6507011-\$ or US-6744931-\$ or US-6212303-\$ or US-5572037-\$ or US-5047858-\$ or US-6211911-\$ or US-6205259-\$ or US-7071978-\$ or US-6731338-\$ or US-5789737-\$ or US-5204620-\$ or US-6571022-\$ or US-6337713-\$ or US-5896172-\$ or US-5834782-\$ or US-5805216-\$ or US-5742659-\$ or US-6940556-\$ or US-4598321-\$).did. or (US-7154515-\$ or US-6630952-\$ or US-5940126-\$ or US-6833873-\$ or US-7050101-\$ or US-6320618-\$ or US-6184516-\$ or US-7295238-\$ or US-6829008-\$ or US-5604781-\$ or US-6803956-\$ or US-6002287-\$ or US-5977535-\$ or US-5929432-\$ or US-5471243-\$ or US-5365352-\$ or US-4873569-\$ or US-4264921-\$ or US-6952228-\$ or US-5541400-\$ or US-4701798-\$ or US-6753518-\$ or US-6352875-\$ or US-4999484-\$ or US-6335528-\$ or US-5856699-\$ or US-4467342-\$).did. or (US-6408110-\$ or US-5105087-\$ or US-4663656-\$ or US-4999077-\$ or US-7164506-\$ or US-7042491-\$ or US-6014160-\$ or US-4926251-\$ or US-7106370-\$ or US-5361145-\$ or US-5253083-\$ or US-4263620-\$ or US-6646682-\$ or US-6069973-\$ or US-7164509-\$ or US-7333146-\$ or US-6515734-\$).did. or (EP-1037458-\$).did. or (JP-04351161-\$).did. or (JP-05003546-\$ or JP-04180339-\$).did.	US-PGPUB; USPAT; EPO; JPO; DERWENT	ADJ	ON	2010/10/20 13:18
S32 3	11	S322 and bayer	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	ADJ	ON	2010/10/20 13:18
S32 4	2	(("20080100734") or ("20090190020")).PN.	US-PGPUB; USPAT	OR	OFF	2010/10/20 17:02

## EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L18	5	(color filter layer with micro lens layer).clm.	USPAT; UPAD	ADJ	ON	2011/11/08 13:17
L19	1388	("same" channel).clm.	USPAT; UPAD	ADJ	ON	2011/11/08 13:17
L20	0	("same" channel with light receiving area).clm.	USPAT; UPAD	ADJ	ON	2011/11/08 13:18
L21	0	("same" channel with pixel signal).clm.	USPAT; UPAD	ADJ	ON	2011/11/08 13:18
L22	0	("same" channel with pixel signals).clm.	USPAT; UPAD	ADJ	ON	2011/11/08 13:18
L23	0	(level difference with color filter).clm.	USPAT; UPAD	ADJ	ON	2011/11/08 13:18
L24	0	(divisional joint exposure).clm.	USPAT; UPAD	ADJ	ON	2011/11/08 13:18